

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method of ~~synchronising~~ synchronizing at least an output signal of at least one receiver module with at least one external clock signal, in particular a receiver module in a telecommunications network or in a network device of a telecommunications network, comprising the steps of:

sending at least ~~one~~ a first clock signal and a second clock signal to the at least one receiver module;

sending at least one item of ~~master-slave status~~ master-slave status information about the at least one of the first clock signal and ~~or~~ the second clock signal to the at least one receiver module; and

selecting, as a function of the item of ~~master-slave status~~ master-slave status information, at the at least one receiver module, the first clock signal or the second clock signal as a master synchronisation ~~synchronisation~~ synchronization signal for ~~its~~ the ~~synchronisation~~ synchronization of the output signal of the at least one receiver module with the at least one external clock signal.

2. (currently amended): A method according to Claim 1, wherein the ~~at least one~~ first clock signal or the second clock signal is defined as a preferred master ~~synchronisation~~synchronization signal, and wherein the at least one receiver module selects as the master ~~synchronisation~~synchronization signal the ~~at least one~~ first clock signal or the second clock signal which is defined as the preferred master ~~synchronisation~~synchronization signal when the ~~at least one~~ first clock signal or the second clock signal, to be selected as the master ~~synchronisation~~synchronization signal, cannot be detected on the basis of the at least one item of ~~master-slave status~~master-slave status information, ~~in particular because the item of master-slave status information is not sent, or is faultily sent, to the at least one receiver module, or the at least one item of master-slave status information identifies both the at least one clock signal and the second clock signal as master synchronisation signal.~~

3. (currently amended): A method according to Claim 1, wherein the ~~at least one~~ first clock signal is generated by a first clock generator module and the second clock signal is generated by a second clock generator module, wherein at least the first clock generator module sends the second clock generator module a ~~synchronisation~~synchronization signal, provided in particular for the ~~its~~ ~~synchronisation~~synchronization of an output signal of the second clock generator module with an output signal of the first clock generator module, and wherein the at least one item of ~~master-slave status~~master-slave status information defines the first clock signal

as ~~the~~ master ~~synchronisation~~synchronization signal for such time as the second clock generator module receives the ~~synchronisation~~synchronization signal.

4. (currently amended): A method according to Claim 3, wherein the at least one item of ~~master-slave-status~~master-slave status information defines the ~~at least one~~ first clock signal and the second clock signal as master ~~synchronisation~~synchronization ~~signal-signals~~ when the second clock generator module does not receive the ~~synchronisation~~synchronization signal.

5. (currently amended): A method according to Claim 1, wherein the at least one item of ~~master-slave-status~~master-slave status information is contained at least partially in at least one of the first clock signal and ~~or at least partially in~~ the second clock signal.

6. (currently amended): A method according to Claim 1, wherein the ~~at least one~~ first clock signal is sent on a first clock line, and the second clock signal is sent on a second clock line, to the at least one receiver module.

7. (currently amended): A method according to Claim 1, wherein ~~the~~ at least one of the first clock signal, ~~and/or~~ the second clock signal, ~~and/or~~ an item of control information assigned

~~thereto~~ to the first clock signal or the second clock signal, contains at least one item of source information from which the at least one receiver module can determine the source from which the ~~at least one~~ first clock signal and the second clock signal emanates, ~~in particular that the first clock generator module and the second clock generator module add the respective items of source information, by which they are identified, to the at least one first clock signal and the second clock signal, respectively.~~

8. (currently amended): A method according to Claim 1, wherein the at least one receiver module is sent at least ~~one~~ a third clock signal provided for fine ~~synchro~~synchro~~nisation~~nization, and wherein the at least one receiver module ~~synchro~~synchro~~nises~~nizes ~~itself at least one of the output signals of the receiver module both with the at least one first clock signal or the second clock signal selected as the master synchro~~synchro~~nisation~~nization signal, and also with the at least ~~one~~ third clock signal.

9. (currently amended): A method according to Claim 1, wherein ~~it the method is performed in a transmission network, in particular with a synchronous digital hierarchy, or in a network device of the transmission network, or in a network device of a transmission network.~~

10. (currently amended): A method according to Claim 1, ~~wherein~~ further comprising;

~~with a first delay means, the at least one first receiver module delays~~ delaying the at least one first clock signal with a first delay means by a predetermined first delay time ~~which in particular corresponds to a maximum expected propagation time difference between the at least one first clock signal and the second clock signal;~~

~~wherein the at least one receiver module delays~~ delaying the second clock signal in ~~with a second delay means;~~

~~wherein the at least one receiver module determines~~ determining a phase difference between the at least one first clock signal and the second clock signal; and

~~wherein the at least one receiver module adapts~~ adapting the phase of the second clock signal to the phase of the first clock signal by adjusting the second delay means so that the at least one receiver module can extract the at least one first clock signal and the second clock signal in-phase from the first delay means and from the second delay means respectively.

11. (currently amended): A ~~synchronisable~~ receiver module with a synchronizable output signal, in particular a receiver module in a telecommunications network or in a network device of a telecommunications network comprising:

a receiving means for receiving at least one a first clock signal and a second clock signal, wherein the receiving means is designed to receive at least one item of master-slave status information about at least one of the first clock signal and the second clock signal; and

~~and comprising~~ a selection means for selecting the ~~at least one~~ first clock signal or the second clock signal as a master synchronisation synchronization signal for the its synchronisation synchronization of the output signal of the receiver module with an external clock signal, wherein the receiving means are designed to receive at least one item of master-slave status information about the ~~at least one first clock signal and/or the second clock signal~~, and wherein the selection means ~~are~~ is designed such that, as a function of the item of ~~master-slave status~~ master-slave status information, the receiver module can select the ~~at least one~~ first clock signal or the second clock signal as the master synchronisation synchronization signal for the its synchronisation synchronization of the receiver module with the external clock signal.

12. (currently amended): A clock generator module, ~~in particular a clock generator module in a telecommunications network or in a network device of a telecommunications network~~, for ~~synchronising~~ synchronizing an output signal of at least one receiver module with an external clock signal, ~~with comprising~~:

a clock generation means for generating at least ~~one~~ a first clock signal; and

~~with~~ a transmitting means for transmitting the ~~at least one~~ first clock signal to the at least one receiver module, wherein the transmitting means ~~are~~ is designed to transmit at least one item of ~~master-slave status~~ master-slave status information about the ~~at least one~~ first clock signal; and

~~a selection means so that as a function of the master-slave status information wherein the~~
at least one receiver module ~~can select~~ selects, as a function of the master-slave status
information, the at least one first clock signal or a second clock signal as a master
synchronisationsynchronization signal for ~~its synchronisation~~ the synchronization of the output
signal of the receiver module with the external clock signal.

13. (currently amended): A clock generator module according to Claim 12, wherein the
transmitting means ~~are~~ is designed to transmit a ~~synchronisationsynchronization~~ signal which is
provided ~~in particular~~ for the ~~synchronisationsynchronization~~ of a second clock generator
module, and/or wherein the first clock generator module comprises a receiving means for
receiving a ~~synchronisationsynchronization~~ signal from the second clock generator module;
provided ~~in particular~~ for ~~its the~~ ~~synchronisationsynchronization~~ of at least one output signal of
the first clock generator module; from with at least one output signal of the a second clock
generator module, and wherein the transmitting means ~~are~~ is designed such that, on the basis of
the at least one item of ~~master-slave status~~ master-slave status information (MSX), they the
transmitting means define defines the ~~at least one~~ first clock signal as the master
~~synchronisationsynchronization~~ signal for such time as the first clock generator module receives
the ~~synchronisationsynchronization~~ signal.

14. (currently amended): A receiver module according to Claim 11, comprising a program code which can be executed by a control means of a network device, ~~in particular~~ by a control means on a console of a network device for a transmission network with a synchronous digital hierarchy.

15. (currently amended): A clock generator module according to Claim 12, comprising a program code which can be executed by a control means of a network device, ~~in particular~~ by a control means on a console of a network device for a transmission network with a synchronous digital hierarchy.

16. (previously presented): A storage medium storing a receiver module according to Claim 14.

17. (previously presented): A network device for a transmission network with a synchronous digital hierarchy, with at least one receiver module according to Claim 11.

18. (original): A storage medium storing a clock generator module according to Claim 15.

19. (original): A network device for a transmission network with a synchronous digital hierarchy, with at least one clock generator module according to Claim 12.

20. (new): A method according to Claim 1, wherein the at least one receiver module is in a telecommunications network or a network device of a telecommunications network.

21. (new): A method according to Claim 2, wherein the first clock signal or the second clock signal, to be selected as the master synchronization signal, cannot be detected on the basis of the at least one item of master-slave status information because the item of master-slave status information is not sent, or is faultily sent, to the at least one receiver module.

22. (new): A method according to Claim 2, wherein the first clock signal or the second clock signal, to be selected as the master synchronization signal, cannot be detected on the basis of the at least one item of master-slave status information because the item of master-slave status information identifies both the first clock signal and the second clock signal as the master synchronization signal.

23. (new): A method according to Claim 7, wherein the first clock generator module and the second clock generator module add the respective items of source information, by which they are identified, to the first clock signal and the second clock signal, respectively.

24. (new): A method according to Claim 9, wherein the method is performed in a transmission network with a synchronous digital hierarchy.

25. (new): A method according to Claim 10, wherein the predetermined first delay time corresponds to a maximum expected propagation time difference between the first clock signal and the second clock signal.

26. (new): A method according to Claim 11, wherein the at least one receiver module is in a telecommunications network or in a network device of a telecommunications network.

27. (new): A method according to Claim 12, wherein the at least one receiver module is in a telecommunications network or in a network device of a telecommunications network.

28. (new): A method of internal redundant clock distribution to synchronize an output signal of at least one receiver module with at least one external clock signal, comprising:

the at least one receiver module receiving at least one external clock signal;

distributing the external clock signal to at least a first independent clock signal generator module and a second independent clock signal generator module;

transmitting at least one item of master-slave status information about the first independent clock signal generator module and the second independent clock signal generator module to the at least one receiver module;

regenerating the external clock signal by the first independent clock signal generator module and the second independent clock signal generator module;

transmitting the clock signals regenerated by the first independent clock signal generator module and the second independent clock signal generator module to the at least one receiver module;

selecting, as a function of the item of master-slave status information, at least one of the regenerated clock signals from the first independent clock signal generator module and the second independent clock signal generator module to serve as a master synchronization signal for the synchronization of the output signal of the at least one receiver module with the at least one external clock signal;

synchronizing the output signal of the at least one receiver module with the at least one regenerated clock signal selected as the master synchronization signal.

29. (new): A method according to Claim 28, wherein the at least one receiver module is in a telecommunications network or a network device of a telecommunications network.

30. (new): A method according to Claim 28, wherein the clock signal regenerated by the first independent clock signal generator module or the clock signal regenerated by the second independent clock signal generator module is defined as a preferred master synchronization signal, and wherein the at least one receiver module selects as the master synchronization signal the clock signal which is defined as the preferred master synchronization signal when the clock signal regenerated by the first independent clock signal generator module or the clock signal regenerated by the second independent clock signal generator module, to be selected as the master synchronization signal, cannot be detected on the basis of the at least one item of master-slave status information.

31. (new): A method according to Claim 30, wherein the clock signal regenerated by the first independent clock signal generator module or the clock signal regenerated by the second independent clock signal generator module, to be selected as the master synchronization signal,

cannot be detected on the basis of the at least one item of master-slave status information because the item of master-slave status information is not sent, or is faultily sent, to the at least one receiver module.

32. (new): A method according to Claim 30, wherein the clock signal regenerated by the first independent clock signal generator module or the clock signal regenerated by the second independent clock signal generator module, to be selected as the master synchronization signal, cannot be detected on the basis of the at least one item of master-slave status information because the item of master-slave status information identifies both the clock signal regenerated by the at least first independent clock signal generator module and the clock signal regenerated by the second independent clock signal generator module as the master synchronization signal.

33. (new): A method according to Claim 28 further comprising:

the first independent clock signal generator module sending the second independent clock signal generator module a synchronization signal, provided for the synchronization of the output signal of the second independent clock signal generator module with the output signal of the first clock generator module, wherein the at least one item of master-slave status information defines the clock signal regenerated by the first independent clock signal generator module as the master

synchronization signal for such time as the second independent clock signal generator module receives the synchronization signal.

34. (new): A method according to Claim 33, wherein the at least one item of master-slave status information defines the clock signal regenerated by the first independent clock signal generator module and the clock signal regenerated by the second independent clock signal generator module as master synchronization signals when the second independent clock generator module does not receive the synchronization signal.

35. (new): A method according to Claim 28, wherein the at least one item of master-slave status information is contained at least partially in at least one of the clock signal regenerated by the first independent clock signal generator module and the clock signal regenerated by the second independent clock signal generator module.

36. (new): A method according to Claim 28, wherein the clock signal regenerated by the first independent clock signal generator module is sent on a first clock line, and the clock signal regenerated by the second independent clock signal generator module is sent on a second clock line, to the at least one receiver module.

37. (new): A method according to Claim 28, wherein at least one of the clock signal regenerated by the first independent clock signal generator module, the clock signal regenerated by the second independent clock signal generator module, and an item of control information assigned to the clock signal regenerated by the first independent clock signal generator module or the clock signal regenerated by the second independent clock signal generator module, contains at least one item of source information from which the at least one receiver module can determine the source from which the clock signal regenerated by the first independent clock signal generator module and the clock signal regenerated by the second independent clock signal generator module emanates.

38. (new): A method according to Claim 28, wherein the at least one receiver module is sent at least a third clock signal provided for fine synchronization, and wherein the at least one receiver module synchronizes at least one of its output signals both with the clock signal regenerated by the first independent clock signal generator module or the clock signal regenerated by the second independent clock signal generator module selected as the master synchronization signal, and also with the at least third clock signal.

39. (new): A method according to Claim 28, wherein the method is performed in a transmission network, or in a network device of a transmission network.

40. (new): A method according to Claim 39, wherein the method is performed in a transmission network with a synchronous digital hierarchy.

41. (new): A method according to Claim 28, further comprising:

the at least one receiver module delaying the clock signal regenerated by the first independent clock signal generator module with a first delay means by a predetermined first delay time;

the at least one receiver module delaying the clock signal regenerated by the second independent clock signal generator module with a second delay means;

the at least one receiver module determining a phase difference between the clock signal regenerated by the first independent clock signal generator module and the clock signal regenerated by the second independent clock signal generator module; and

the at least one receiver module adapting the phase of the clock signal regenerated by the second independent clock signal generator module to the phase of the clock signal regenerated by first independent clock signal generator module by adjusting the second delay means so that the at least one receiver module can extract the clock signal regenerated by the first independent clock signal generator module and the clock signal regenerated by the second independent clock

signal generator module in-phase from the first delay means and from the second delay means respectively.

42. (new): A method according to Claim 41, wherein the predetermined first delay time corresponds to a maximum expected propagation time difference between the clock signal regenerated by the first independent clock signal generator module and the clock signal regenerated by the second independent clock signal generator module.